

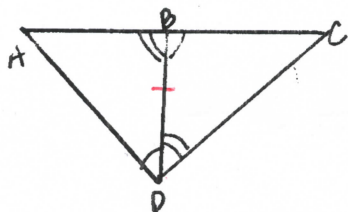
- 1) What does CPCTC stand for? What must you prove first before you can use CPCTC?

CORRESPONDING PARTS OF CONGRUENT TRIANGLES ARE CONGRUENT

PROVE TRIANGLES CONGRUENT

For #2-4, give the reason the triangles are congruent. Then give the reason you can prove the other parts of the triangle congruent.

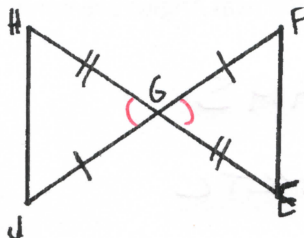
2)



$\triangle ABD \cong \triangle CBD$ by ASA

$\angle A \cong \angle C$ by CPCTC

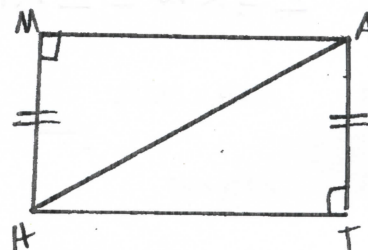
3)



$\triangle HGF \cong \triangle EGF$ by SAS

$\angle H \cong \angle E$ by CPCTC

4)



$\triangle MHA \cong \triangle TAH$ by HL

$\angle MAH \cong \angle THA$ by CPCTC

- 5) Given: $\angle ADB$ and $\angle CDB$ are right angles

D is the midpoint of AC

Prove: $\overline{AB} \cong \overline{CB}$

STATEMENTS

REASONS

1. $\angle ADB$ AND $\angle CDB$ ARE RIGHT ANGLES

1. GIVEN

2. D IS MIDPOINT OF AC

2. GIVEN

3. $\overline{AD} \cong \overline{CD}$

3. DEFINITION OF A MIDPOINT

4. $\angle ADB \cong \angle CDB$

4. ALL RIGHT ANGLES ARE \cong

5. $\overline{BD} \cong \overline{BD}$

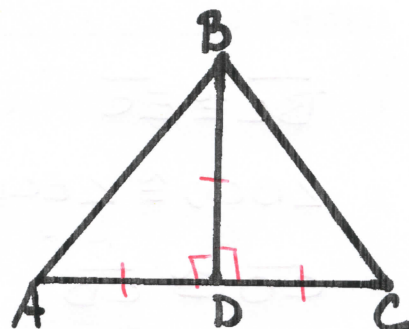
5. Reflexive

6. $\triangle ADB \cong \triangle CDB$

6. SAS

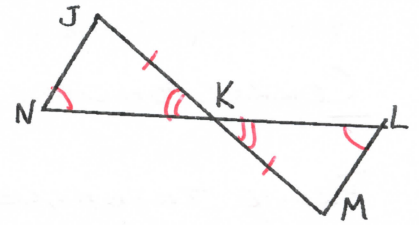
7. $\overline{AB} \cong \overline{CB}$

7. CPCTC



6) Given: $\angle N \cong \angle L$, and $\overline{JK} \cong \overline{MK}$

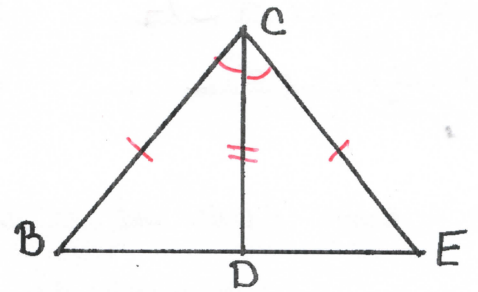
Prove: $\angle J \cong \angle M$



STATEMENTS	REASONS
1. $\angle N \cong \angle L$	1. GIVEN
2. $\overline{JK} \cong \overline{MK}$	2. GIVEN
3. $\angle JKN \cong \angle MKL$	3. Vertical Angles are congruent
4. $\triangle JKN \cong \triangle MKL$	4. AAS
5. $\angle J \cong \angle M$	5. CPCTC

7) Given: $\overline{BC} \cong \overline{EC}$, and $\angle BCD \cong \angle ECD$

Prove: $\overline{BD} \cong \overline{ED}$



STATEMENTS	REASONS
1. $\overline{BC} \cong \overline{EC}$	1. GIVEN
2. $\angle BCD \cong \angle ECD$	2. GIVEN
3. $\overline{CD} \cong \overline{CD}$	3. Reflexive
4. $\triangle BCD \cong \triangle ECD$	4. SAS
5. $\overline{BD} \cong \overline{ED}$	5. CPCTC